CLAIMS:

1. A method of controlling a variable gain amplifier having at least one semiconductor switch, the amplifier having a first gain when the semiconductor switch is in a first steady state and a first gate voltage is applied to the semiconductor switch, and the amplifier having a second gain when the semiconductor switch is in a second steady state and a second gate voltage is applied to the semiconductor switch, whereby a sequence of third gate voltages is applied to the semiconductor switch to transition between the first and second gains.

2. The method of claim 1, further comprising generating a stepped signal sequence and low pass filtering of the stepped signal sequence to obtain the sequence of third gate voltages.

3. The method of claim 1 or 2, the variable gain amplifier having a set of semiconductor switches, further comprising selecting a sub-set of the set of semiconductor switches, and applying a sequence of third gate voltages to each one of the semiconductor switches of the sub-set.

4. The method of claims 1, 2 or 3, further comprising modulating of the gate voltages by means of an alternating drain signal component.

5. An electronic circuit comprising a variable gain amplifier (100;400; 500; 600) having at least one semiconductor switch (104), the amplifier having a first gain when the semiconductor switch is in a first steady state and a first gain voltage is applied to the semiconductor switch, and the amplifier having a second gain when the semiconductor switch is in a second steady state and a second gate voltage is applied to the semiconductor switch, and control means (106, 130) for applying a sequence of third gate voltages to transition between the first and second gains.

6. The electronic circuit of claim 5, further comprising means (116) for generating a stepped signal sequence and means (122) for low pass filtering of the stepped signal sequence in order to obtain the sequence of third gain voltages.

7. The electronic circuit of claims 5 or 6, further comprising a gate voltage generator circuit (108), a first (110) and a second (112) reference voltage circuit, the gate voltage generator circuit, the first and the second reference voltage circuits being equivalent to the variable gain amplifier, the first gate voltage being applied to the gate of the semiconductor switch of the first reference voltage circuit and the second gate voltage being applied to the gate of the semiconductor switch of the second reference voltage circuit to provide first and second reference voltages, respectively, and sequence generator means (116) for generating a sequence of voltages transitioning between the first and the second voltage references, the gate voltage generator circuit being controlled by the sequence of voltages provided by the sequence generator means to produce the sequence of third gate voltages.

8. The electronic circuit of claims 5, 6 or 7, having first ones of the semiconductor switches for coarse gain selection and having second ones of the semiconductor switches for fine gain selection.

9. The electronic circuit of any one of the preceding claims 5 to 8, further comprising means for multiplexing of the control means for applying the sequence of third gate voltages between the semiconductor switches in order to enable a sequential transition of the semiconductor switches between respective first and second steady states.

10. The electronic circuit of any one of the preceding claims 5 to 9, further comprising an interface circuit (130) between the gate of the semiconductor switch and the control means, the interface circuit having a memory for storing of the present steady state of the semiconductor switch and for providing a state signal of the present steady state of the semiconductor switch to the control means.

11. The electronic circuit of any one of the preceding claims 5 to 10, further comprising means (136) for modulating the gate voltages by means of an alternating drain signal component.

12. The electronic circuit of claim 11, the means for modulating for the gate voltages comprising a resistor (136) being connected in series with a capacitor, the series connection of the resister and the capacitor coupling the drain and the source of the semiconductor switch.

13. The electronic circuit of claim 11, the means for modulating of the gate voltages being adapted to bring an alternating current voltage component of the gate-source voltage of the semiconductor switch to the average values of the gain and source voltages of the semiconductor switch.

14. The electronic circuit of claim 13, a first series connection of a capacitor and a resistor being coupled between the gates and the drain of the semiconductor switch and a second series connection of a resistor and a capacitor being coupled between the gates and the source of the semiconductor switch.

15. The electronic circuit of any one of the preceding claims 11 to 14, the means for modulating of the gate voltages being adapted to divide the modulating signal amplitude across several semiconductor switches.